

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Currently Amended): A catalyst composition, comprising:

- (a) a molecular sieve;
- (b) a clay or clay-type matrix material containing less than about 10,000 wppm iron and iron-containing species, based on the total weight of the matrix material; and
- (c) optionally binder.

2. (Original): The composition of claim 1, wherein the matrix material contains less than about 7,000 wppm iron and iron-containing species, based on the total weight of the matrix material.

3. (Original): The composition of claim 2, wherein the matrix material contains less than about 4,000 wppm iron and iron-containing species, based on the total weight of the matrix material.

4. (Original): The composition of claim 1, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

5. (Original): The composition of claim 1, wherein the catalyst composition has a  $d_{50}$  particle size from about 20 to about 200 microns.

6. (Original): The composition of claim 1, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

7. (Original): The composition of claim 6, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

8. (Original): The composition of claim 1, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurring medium.

9. (Currently Amended): A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material containing less than about 15,000 wppm titanium and titanium-containing species, based on the total weight of the matrix material; and

(c) optionally binder.

10. (Original): The composition of claim 9, wherein the matrix material contains less than about 10,000 wppm titanium and titanium-containing species, based on the total weight of the matrix material.

11. (Original): The composition of claim 10, wherein the matrix material contains less than about 5,000 wppm titanium and titanium-containing, based on the total weight of the matrix material.

12. (Original): The composition of claim 9, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, saponite, hectorite and laponite.

13. (Original): The composition of claim 9, wherein the catalyst composition has a  $d_{50}$  particle size from about 20 to about 200 microns.

14. (Original): The composition of claim 9, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18,

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

15. (Original): The composition of claim 14, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

16. (Original): The composition of claim 9, whercin the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurrying medium.

17. (Currently Amended): A catalyst composition, comprising:

(a) a molecular sieve;  
(b) a clay or clay-type matrix material containing less than about 1,500 wppm nickel and nickel-containing species, based on the total weight of the matrix material; and  
(c) optionally binder.

18. (Original): The composition of claim 17, wherein the matrix material contains less than about 300 wppm nickel and nickel-containing species, based on the total weight of the matrix material.

19. (Original): The composition of claim 18, wherein the matrix material contains less than about 150 wppm nickel and nickel-containing species, based on the total weight of the matrix material.

20. (Original): The composition of claim 17, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, hectorite, saponite and laponite

21. (Original): The composition of claim 17, wherein the catalyst composition has a  $d_{50}$

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

particle size from about 20 to about 200 microns.

22. (Original): The composition of claim 17, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

23. (Original): The composition of claim 22, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

24. (Original): The composition of claim 17, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurring medium.

25. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;  
(b) a clay or clay type matrix material containing less than about 1,500 wppm cobalt and cobalt-containing species, based on the total weight of the matrix material; and  
(c) optionally binder.

26. (Original): The composition of claim 25, wherein the matrix material contains less than about 100 wppm cobalt and cobalt-containing species, based on the total weight of the matrix material.

27. (Original): The composition of claim 26, wherein the matrix material contains less than about 5 wppm cobalt and cobalt-containing species, based on the total weight of the matrix material.

28. (Original): The composition of claim 25, wherein the matrix material is selected

Appl. No. 10/657,057  
Auty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, hectorite, saponite and laponite.

29. (Original): The composition of claim 25, wherein the catalyst composition has a  $d_{50}$  particle size from about 20 to about 200 microns.

30. (Original): The composition of claim 25, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

31. (Original): The composition of claim 30, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

32. (Original): The composition of claim 25, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurring medium.

33. (Currently Amended): A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

(a) selecting a clay or clay-type matrix material containing less than 10,000 wppm of iron and iron-containing species, based on the total weight of the matrix material;

(b) forming a slurry containing the matrix material, a molecular sieve, a slurring medium, and optionally a binder; and

(c) drying the slurry to produce the molecular sieve catalyst composition.

34. (Original): The process of claim 33, wherein the matrix material contains less than 7,000 wppm of iron and iron-containing species, based on the total weight of the matrix material.

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

35. (Original): The process of claim 34, wherein the matrix material contains less than 4,000 wppm of iron and iron-containing species, based on the total weight of the matrix material.

36. (Original): The process of claim 33, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

37. (Currently Amended): A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

- (a) selecting a clay or ~~clay type~~ matrix material containing less than 15,000 wppm of titanium and titanium-containing species, based on the total weight of the matrix material;
- (b) forming a slurry containing the matrix material, a molecular sieve, a slurring medium, and optionally a binder; and
- (c) drying the slurry to produce the molecular sieve catalyst composition.

38. (Original): The process of claim 37, wherein the matrix material contains less than 10,000 wppm of titanium and titanium-containing species, based on the total weight of the matrix material.

39. (Original): The process of claim 38, wherein the matrix material contains less than 5,000 wppm of titanium and titanium-containing species, based on the total weight of the matrix material.

40. (Original): The process of claim 37, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

forms thereof, intergrown forms thereof, and mixtures thereof.

41. (Currently Amended): A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

- (a) selecting a clay or clay type matrix material containing less than 1,500 wppm of nickel and nickel-containing species, based on the total weight of the matrix material;
- (b) forming a slurry containing the matrix material, a molecular sieve, a slurring medium, and optionally a binder; and
- (c) drying the slurry to produce the molecular sieve catalyst composition.

42. (Original): The process of claim 41, wherein the matrix material contains less than 300 wppm of nickel and nickel-containing species, based on the total weight of the matrix material.

43. (Original): The process of claim 42, wherein the matrix material contains less than 150 wppm of nickel and nickel-containing species, based on the total weight of the matrix material.

44. (Original): The process of claim 41, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

45. (Currently Amended): A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

- (a) selecting a clay or clay type matrix material containing less than 1,500 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material;
- (b) forming a slurry containing the matrix material, a molecular sieve, a slurring medium, and optionally a binder; and

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

(c) drying the slurry to produce the molecular sieve catalyst composition.

46. (Original): The process of claim 45, wherein the matrix material contains less than 100 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material.

47. (Original): The process of claim 46, wherein the matrix material contains less than 5 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material.

48. (Original): The process of claim 45, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

Claims 49-91. (Canceled)

92. (Currently Amended): A catalyst composition, comprising:

- (a) a molecular sieve;
- (b) a clay ~~or clay~~ type matrix material containing less than about 1,500 wppm manganese and manganese-containing species, based on the total weight of the matrix material; and
- (c) optionally binder.

93. (Original): The composition of claim 92, wherein the matrix material contains less than about 300 wppm manganese and manganese-containing species, based on the total weight of the matrix material.

94. (Original): The composition of claim 93, wherein the matrix material contains less than about 150 wppm manganese and manganese-containing species, based on the total weight of the matrix material.

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

95. (Original): The composition of claim 92, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, hectorite, saponite and laponite.

96. (Original): The composition of claim 92, wherein the catalyst composition has a  $d_{50}$  particle size from about 20 to about 200 microns.

97. (Original): The composition of claim 92, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

98. (Original): The composition of claim 97, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

99. (Original): The composition of claim 92, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurring medium.

100. (Currently Amended): A catalyst composition, comprising:

(a) a molecular sieve;  
(b) a clay or clay-type matrix material containing less than about 1,500 wppm vanadium and vanadium-containing species, based on the total weight of the matrix material; and  
(c) optionally binder.

101. (Original): The composition of claim 100, wherein the matrix material contains less than about 300 wppm vanadium and vanadium-containing species, based on the total weight of the matrix material.

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

102. (Original): The composition of claim 101, wherein the matrix material contains less than about 150 wppm vanadium and vanadium-containing species, based on the total weight of the matrix material.

103. (Original): The composition of claim 100, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, hectorite, saponite and laponite.

104. (Original): The composition of claim 100, wherein the catalyst composition has a  $d_{50}$  particle size from about 20 to about 200 microns.

105. (Original): The composition of claim 100, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

106. (Original): The composition of claim 105, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

107. (Original): The composition of claim 100, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurring medium.

108. (Currently Amended): A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

- (a) selecting a clay or clay-type matrix material containing less than 1,500 wppm of manganese and manganese-containing species, based on the total weight of the matrix material;
- (b) forming a slurry containing the matrix material, a molecular sieve, a slurring medium, and optionally a binder; and

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

(c) drying the slurry to produce the molecular sieve catalyst composition.

109. (Original): The process of claim 108, wherein the matrix material contains less than 300 wppm of manganese and manganese-containing species, based on the total weight of the matrix material.

110. (Original): The process of claim 109, wherein the matrix material contains less than 150 wppm of manganese and manganese-containing species, based on the total weight of the matrix material.

111. (Original): The process of claim 108, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

112. (Currently Amended): A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

- (a) selecting a clay or clay-type matrix material containing less than 1,500 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material;
- (b) forming a slurry containing the matrix material, a molecular sieve, a slurring medium, and optionally a binder; and
- (c) drying the slurry to produce the molecular sieve catalyst composition.

113. (Original): The process of claim 112, wherein the matrix material contains less than 300 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material.

114. (Original): The process of claim 113, wherein the matrix material contains less than 150 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material.

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

115. (Original): The process of claim 112, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

116. (Currently Amended): A catalyst composition, comprising:

- (a) a molecular sieve;
- (b) a clay or clay-type matrix material; and
- (c) optionally binder, wherein the catalyst composition contains less than about 10,000 wppm iron and iron-containing species, based on the total weight of the catalyst composition.

117. (Original): The composition of claim 116, wherein the catalyst composition contains less than about 7,000 wppm iron and iron-containing species, based on the total weight of the catalyst composition.

118. (Original): The composition of claim 117, wherein the catalyst composition contains less than about 4,000 wppm iron and iron-containing species, based on the total weight of the catalyst composition.

119. (Original): The composition of claim 116, wherein the matrix material contains less than about 10,000 wppm iron and iron-containing species, based on the total weight of the matrix material.

120. (Original): The composition of claim 119, whercin the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

121. (Original): The composition of claim 116, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

122. (Currently Amended): A catalyst composition, comprising:

- (a) a molecular sieve;
- (b) a clay or clay-type matrix material; and
- (c) optionally binder, wherein the catalyst composition contains less than about 15,000 wppm titanium and titanium-containing species, based on the total weight of the catalyst composition.

123. (Original): The composition of claim 122, wherein the catalyst composition contains less than about 10,000 wppm titanium and titanium-containing species, based on the total weight of the catalyst composition.

124. (Original): The composition of claim 123, wherein the catalyst composition contains less than about 5,000 wppm titanium and titanium-containing species, based on the total weight of the catalyst composition.

125. (Original): The composition of claim 122, wherein the matrix material contains less than about 15,000 wppm titanium and titanium-containing species, based on the total weight of the matrix material.

126. (Original): The composition of claim 125, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

127. (Original): The composition of claim 122, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

128. (Currently Amended): A catalyst composition, comprising:

- (a) a molecular sieve;
- (b) a clay or clay-type matrix material; and
- (c) optionally binder, wherein the catalyst composition contains less than about 1,500 wppm nickel and nickel-containing species, based on the total weight of the catalyst composition.

129. (Original): The composition of claim 128, wherein the catalyst composition contains less than about 300 wppm nickel and nickel-containing species, based on the total weight of the catalyst composition.

130. (Original): The composition of claim 129, wherein the catalyst composition contains less than about 150 wppm nickel and nickel-containing species, based on the total weight of the catalyst composition.

131. (Original): The composition of claim 128, wherein the matrix material contains less than about 1,500 wppm nickel and nickel-containing species, based on the total weight of the matrix material.

132. (Original): The composition of claim 131, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

133. (Original): The composition of claim 128, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

134. (Currently Amended): A catalyst composition, comprising:

- (a) a molecular sieve;
- (b) a clay or clay-type matrix material; and

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

(c) optionally binder, wherein the catalyst composition contains less than about 1,500 wppm cobalt and cobalt-containing species, based on the total weight of the catalyst composition.

135. (Original): The composition of claim 134, wherein the catalyst composition contains less than about 100 wppm cobalt and cobalt-containing species, based on the total weight of the catalyst composition.

136. (Original): The composition of claim 135, wherein the catalyst composition contains less than about 5 wppm cobalt and cobalt-containing species, based on the total weight of the catalyst composition.

137. (Original): The composition of claim 134, wherein the matrix material contains less than about 1,500 wppm cobalt and cobalt-containing species, based on the total weight of the matrix material.

138. (Original): The composition of claim 137, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

139. (Original): The composition of claim 134, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

140. (Currently Amended): A catalyst composition, comprising:

- (a) a molecular sieve;
- (b) a clay or clay-type matrix material; and
- (c) optionally binder, wherein the catalyst composition contains less than about 1,500 wppm manganese and manganese-containing species, based on the total weight of the catalyst composition.

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

141. (Original): The composition of claim 140, wherein the catalyst composition contains less than about 300 wppm manganese and manganese-containing species, based on the total weight of the catalyst composition.

142. (Original): The composition of claim 141, wherein the catalyst composition contains less than about 150 wppm manganese and manganese-containing species, based on the total weight of the catalyst composition.

143. (Original): The composition of claim 140, wherein the matrix material contains less than about 1,500 wppm manganese and manganese-containing species, based on the total weight of the matrix material.

144. (Original): The composition of claim 143, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

145. (Original): The composition of claim 140, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

146. (Currently Amended): A catalyst composition, comprising:

- (a) a molecular sieve;
- (b) a clay or clay-type matrix material; and
- (c) optionally binder, wherein the catalyst composition contains less than about 1,500 wppm vanadium and vanadium-containing species, based on the total weight of the catalyst composition.

147. (Original): The composition of claim 146, wherein the catalyst composition contains less than about 300 wppm vanadium and vanadium-containing species, based on the total weight of the catalyst composition.

Appl. No. 10/657,057  
Atty. Docket: 2003B093  
Amendment dated March 10, 2006  
Reply to Office Action mailed January 13, 2006

---

148. (Original): The composition of claim 147, wherein the catalyst composition contains less than about 150 wppm vanadium and vanadium-containing species, based on the total weight of the catalyst composition.

149. (Original): The composition of claim 146, wherein the matrix material contains less than about 1,500 wppm vanadium and vanadium-containing species, based on the total weight of the matrix material.

150. (Original): The composition of claim 149, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

151. (Original): The composition of claim 146, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.